



The Genus Mycterothrips Trybom (Thysanoptera: Thripidae) from Taiwan 【Research report】

台灣之雙毛薊馬屬 (纓翅目: 薊馬科) 【研究報告】

Chin-Ling Wang

王清玲*

*通訊作者E-mail : Mycterothrips@ms15.hinet.net, Taiwan, auratus, caudibrunneus, ravidus.

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Abstract

Five species of the genus *Mycterothrips* Trybom in Taiwan are described and illustrated. Three of them, *M. auratus*, *M. caudibrunneus*, and *M. ravidus*, are new. The male of *M. araliae* is described for the first time. An identification key for these 5 species is provided.

摘要

本文描述台灣雙毛薊馬屬(*Mycterothrips* Trybom)之種類，包括3新種：金雙毛薊馬(*M. auratus*)，褐腹雙毛薊馬(*M. caudibrunneus*)及灰斑雙毛薊馬(*M. ravidus*)，以及2已記錄種：雙毛薊馬(*M. araliae* (Takahashi))與豆雙毛薊馬(*M. glycines* (Okamoto))之形態特徵等，其中雙毛薊馬係首次紀錄描述其雄蟲，文中亦提供該5種之檢索表。

Key words: *Mycterothrips*, Taiwan, *auratus*, *caudibrunneus*, *ravidus*.

關鍵詞: 雙毛薊馬屬、金雙毛薊馬、褐尾雙毛薊馬、灰斑雙毛薊馬、台灣

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The Genus *Mycterothrips* Trybom (Thysanoptera: Thripidae) from Taiwan

Chin-Ling Wang Department of Applied Zoology, Taiwan Agricultural Research Institute, Wufeng, Taichung, 413, Taiwan, R.O.C.

ABSTRACT

Five species of the genus *Mycterothrips* Trybom in Taiwan are described and illustrated. Three of them, *M. auratus*, *M. caudibrunneus*, and *M. ravidus*, are new. The male of *M. araliae* is described for the first time. An identification key for these five species is provided.

Key words: *Mycterothrips*, Taiwan, *auratus*, *caudibrunneus*, *ravidus*.

Introduction

There are 93 genera of suborder Terebrantia in Taiwan, and except *Thrips* Linne with 16 species and *Helionothrips* Bagnall with eight species, most of the genera have one or two species. (Wang, 1993, 1994). Two species of *Mycterothrips* Trybom, *M. araliae* (Takahashi) and *M. glycines* (Okamoto) are recorded by Takahashi (1936) and Chen (1980) on *Aralia* and *Morus*, respectively. In this study, three new species are added to this genus. *Mycterothrips*, with five species now, is a taxonomically large and important genus in Taiwan. These *Mycterothrips* were all collected from both woody and herbal plants in low densities. Type specimens of new species are deposited in the Department of Applied Zoology, Taiwan Agricultural Research Institute.

Physothrips Karny, *Rhopalanthrothrips* Priesner, and *Pseudoscirtothrips* Bournier are recognized as synonyms of *Myctero-*

othrips by Bhatti (1969, 1990). There are about 20 species in this genus worldwide.

Mycterothrips Trybom, 1910

Mycterothrips Trybom, 1910. Denkschr. Med.-naturw. Ges. Jena 16: 158. Type species: *Mycterothrips laticauda* Trybom, 1910.

Physothrips Karny, 1912. Zool. Annal., 4: 336. Type species: *Thrips salicis* O. M. Reuter, 1879.

Rhopalanthrothrips Priesner, 1922. Sitzber. Akad. Wiss. Wien. Math.-naturw. Sitzber I, 131 (4~5): 68. Type species: *Thrips consociata* Targioni-Tozzetti, 1885.

Pseudoscirtothrips Bournier, 1979. Garcia de Orta (Zool.) 8 (1~2): 8. Type species: *Pseudoscirtothrips imbibachetae* Bournier, 1979.

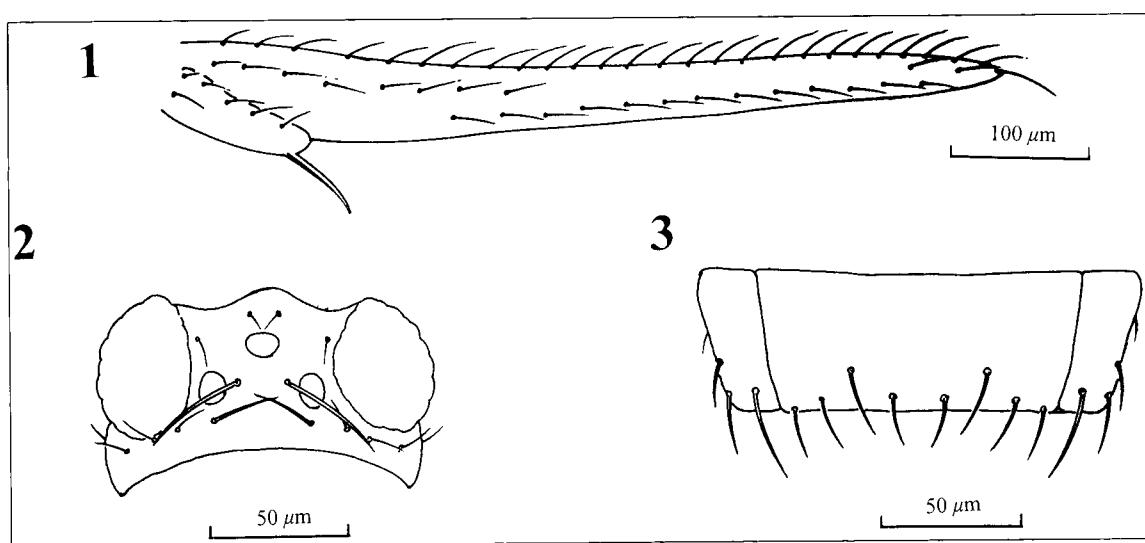
Body color of female *Mycterothrips* from whitish gray to dark brown, often with irregular darker spots on lateral and central parts of abdomen and thorax. Head wider than long, ocellar setae pair i

present, pair iii long and strong, inserted between 2 posterior ocelli, postocular setae 5~6 pairs, arranged in a line, i and iii longer. Antenna 8-segmented, segments III and IV with forked sense cones. Pronotum with 2~4 pairs of setae on anterior margin, number of discal setae varied from less than 20 to over 50, one pair of discal setae on posterolateral disc usually longer, 2 pairs of posteroangular major setae, 2 pairs posteromarginal setae with inner pair longer. Meso- and metaspinula usually present. Forewing with 7~8 basal setae and 2 distal setae on upper vein, lower vein evenly arranged with 10~16 setae, 5 scale marginal setae. Abdominal tergites without lateral ctenidia, lateral of tergites II-VII transversely striated, striates with significant or insignificant microtrichia or without microtrichia, lateroposterior margins with fine microtrichia or comb, tergite VIII with complete and long posterior marginal comb. Abdominal sternites with none to many discal setae, median pair of posteromarginal setae of sternite VII inserted on posterior margin or anterior to it.

Male smaller, antenna normal or dimorphism, segment V normal or shortened to form a bowl shape, segment VI normal or elongated, some species with segment V short and segment VI greatly elongated and hairy. Tergite VIII with posterior comb long and complete, abdominal sternites usually with discal setae, 3 pairs of setae on posterior margin of sternite IX, without glandular area.

Key to species of *Mycterothrips* Trybom from Taiwan

1. Female abdominal sternites IV-VI and sometimes VII with one pair of discal setae (Fig. 3), male antennal segment VI hairy, about 5 times as long as segment III (Fig. 5).....*auratus* sp. n.
- Female abdominal sternites without discal setae.....2
2. Female lateral striates on abdominal tergites II-VII with clear and dense microtrichia (Figs. 17, 18).....3
- Female lateral striates on abdominal tergites II-VII without microtrichia or with few and insignificant microtrichia (Figs. 14, 16).....4



Figs. 1-3. *Mycterothrips auratus* sp. n. (♀): 1. forewing; 2. head; 3. abdominal sternite VI.

3. Female antennal segments III and IV not the same color with II and V-VIII, male antennal segment VI about 1.4 times as long as segment III.....
.....*glycines* (Okamoto)
- Female antennal segments II-VIII same color, male antennal segment VI hairy, about 4 times as long as segment III (Fig. 8).....*ravidus* sp. n.
4. Posterolateral margins of abdominal tergites VI and VII with spine like comb (Fig. 16), color of abdominal segments darker to the posterior segments, male unknown.....
.....*caudibrunneus* sp. n.
- Posterolateral margins of abdominal tergites VI and VII without comb or microtrichia (Fig. 14), no significant color variations in abdominal segments, male antennal segment VI shorter than segment III (Fig. 4).....
.....*araliae* (Takahashi)

Mycterothrips araliae (Takahashi)

(Figs. 4, 9, 14)

Taeniothrips araliae Takahashi, 1936,
Philipp. J. Sci. 60(4): 434.

Mycterothrips araliae (Takahashi):

Bhatti, 1978. Oriental Ins. 12(2): 185.

Takahashi (1936) described a holotype female from his survey of Taiwanese thrips. The male mounted on the same slide with the holotype but not mentioned by Takahashi is measured and briefly described here, and the female is redescribed.

Female macroptera: Body yellow; antennal segment I light yellow, segments II-VIII mostly brown, light yellow in basal 1/3 of segment III and at extreme base of segment IV. Forewing shaded. Legs yellow. All major setae dark brown.

Head wider than long, striated behind compound eyes; ocellar setae pair i anterior to front ocellus, pair ii on far sides of front ocellus, pair iii strong, on anterior marginal line between 2 posterior ocelli; 5 pairs of postocular setae, the pair right behind compound

eyes longer. Maxillary palps 3-segmented. Antenna 8-segmented, segment III longest, segments III and IV with forked sense cones (Fig. 4).

Pronotum with 2 pairs of posterolangular major setae, subequal in length; 2 pairs of setae on posteromargin, with inner pair longer; discal setae nearly 60, including 8 at anterior margin (Fig. 9). Meso- and metaspinula present. Forewing with 7~8 setae on base of upper vein, 2 on distal end, 13 setae on lower vein, arranged evenly.

Lateral striations and posterolateral margins of abdominal tergites II-VII without microtrichia; tergite VIII with posterior comb complete (Fig. 14). Median pair of setae on sternite VII inserted in front of posterior margin; sternites with no discal setae.

Measurements (holotype ♀ in μm): Body length 1425. Head, length 132; width 160; ocellar setae 58. Pronotum, length 132; width 212; major angular setae length 70. Forewing length 850. Comb on tergite VIII length 25. Antennal segments I-VIII length (width): 25 (30), 35 (25), 68 (25), 60 (23), 38 (17), 48 (17), 10 (7), 13 (5).

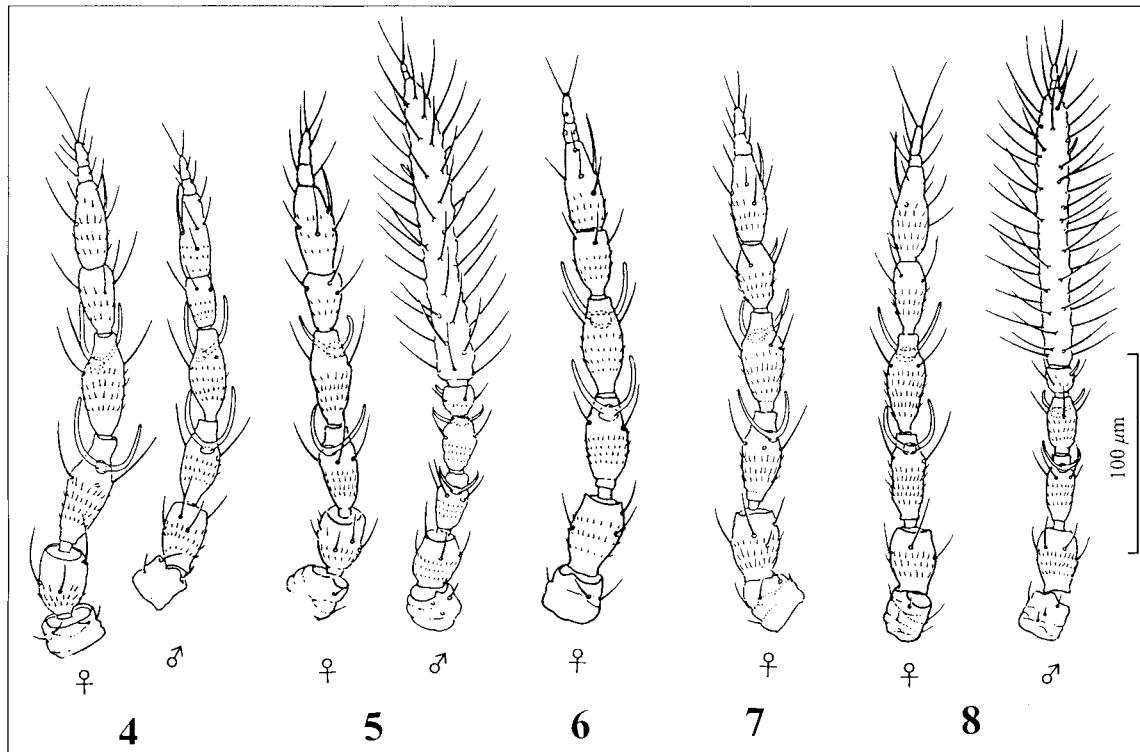
Male macroptera: Body yellow. Antennal segments I light yellow, II-VIII brown, III lighter than II and IV. Tergite VIII with posterior comb complete; 3 pairs of major setae on tergite IX. Antennal normal, segment VI shorter than segment III or segment IV (Fig. 4).

Measurements (δ in μm): Body length, 1025; head, length 100, width 132; forewing length 625; antennal segments I-VIII length (width): 25 (27), 30 (25), 50 (23), 50 (20), 30 (18), 43 (18), 5 (8), 7 (5).

Holotype ♀, TAIWAN: TAITUNG (= Taito), 16-V-1935, R. Takahashi, on *Aralia bipinnata*. 1♂, mounted on the same slide with holotype.

Distribution: Taiwan.

Remarks: *M. araliae* has no tergal lateral microtrichia, which makes it



Figs. 4-8. Antenna: 4. *M. araliae* (Takahashi); 5. *M. auratus* sp. n.; 6: *M. caudibrunneus* sp. n. ; 7. *M. glycines* (Okamoto); 8. *M. ravidus* sp. n.

closest to *M. caudibrunneus* sp. n. and *M. consociatus* (Targioni-Tozzetti). These three species can be separated by the following differences: 1. *M. araliae* has several fine microtrichia on postero-lateral margins of tergites II-VII, never triangular based and spine like as in *M. caudibrunneus*. 2. *M. araliae* is a yellow species, while *M. consociatus* is a brown species, with legs and all antennal segments brown. Besides *M. consociatus* has median setae on sternite VII placed on the posterior margin, and the male antennal segment VI is hairy and elongated.

***Mycterothrips auratus* sp. n.**
(Figs. 1, 2, 3, 5, 10, 15, 19)

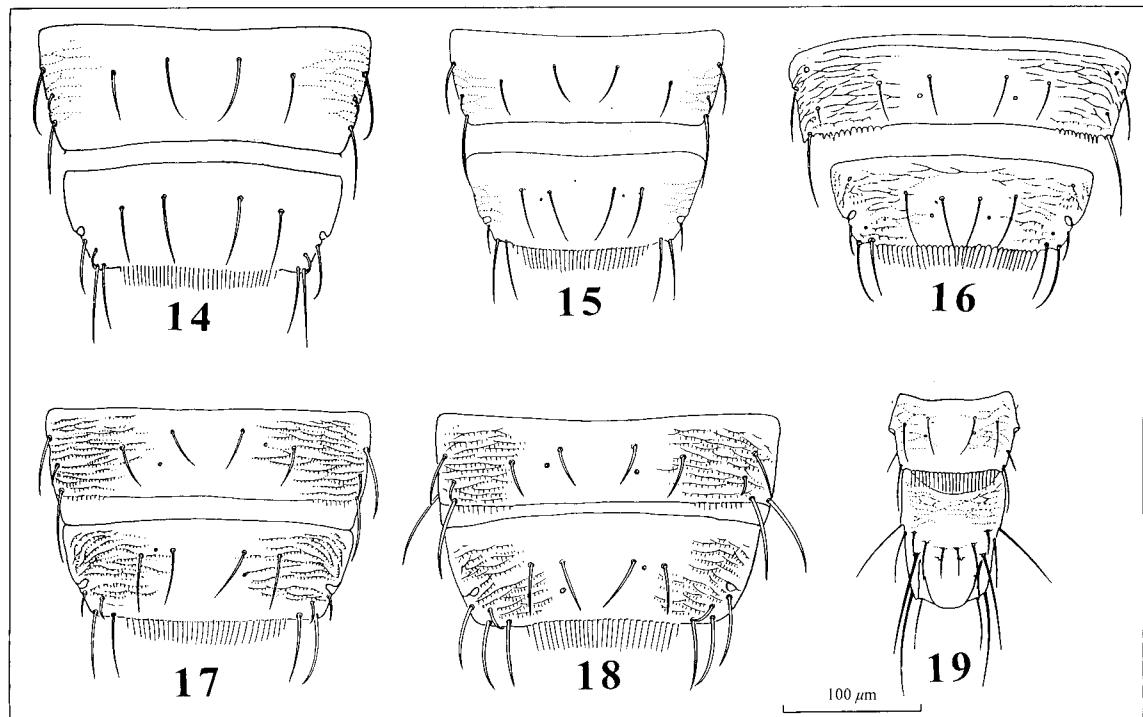
Female macroptera: Head and thorax yellowish brown, abdomen yellow; antennal segment I light yellow, II and III grayish brown with II darker, IV to VIII

brown; forewing yellowish; legs yellow.

Head wider than long, striated behind compound eyes; ocellar setae pair i anterior to front ocellus, pair ii on far sides of front ocellus, pair iii strong, on anterior marginal lines between 2 posterior ocelli; 5 pairs of postocular setae, the pair right behind compound eyes longer (Fig. 1). Maxillary palps 3-segmented. Antenna 8-segmented, III and IV with forked sense cones (Fig. 5).

Pronotum with 2 pairs of posterolangular setae, subequal in length; 2 pairs of setae on posteromargin, with inner pair longer; discal setae 46~48 (Fig. 10). Meso- and metaspinula present. Forewing with 7~8 setae on base of upper vein, 2 on distal end, 13~14 setae on lower vein, arranged evenly.

Lateral striae on abdominal tergites weak and insignificant, no microtrichia; posterior comb on tergite VIII complete



Figs. 9-13. Female pronotum: 9. *M. araliae* (Takahashi); 10. *M. auratus* sp. n.; 11. *M. caudibrunneus* sp. n.; 12. *M. glycines* (Okamoto); 13. *M. ravidus* sp. n.

(Fig. 15); 2 pairs of discal pores on tergite IX. Median pair of setae on sternite VII inserted anterior to posterior margin; sternites IV-VI and sometimes VII with 1 pair of discal setae.

Measurements (holotype ♀ in μm): Body length 1075. Head, length 60; width 122; ocellar setae 40. Pronotum, length 125; width 140. Forewing length 600. Comb on tergite VIII 22.5. Antennal segments I-VIII length (width): 27.5 (25), 30 (12.5), 47.5 (17.5), 40 (15), 27.5 (15), 45 (17.5), 10 (5), 15 (5).

Male macroptera: Smaller; body grayish brown; antennal segments brown, segment V short and bowl shaped, segment VI elongated and hairy (Fig. 5), VII and VIII minute. Tergite VIII with complete posterior comb (Fig. 19); tergite IX with 3 pairs of strong setae. Sternites IV-VII with discal setae.

Measurements (paratype ♂ in μm): Body length 800. Forewing length 525.

Comb on tergite VIII 17.5. Tergite IX B1 22.5, B2 27.5, B3 20. Antennal segments I-VIII length (width): 22.5 (25), 30 (22.5), 32.5 (17.5), 22.5 (17.5), 12.5 (15), 163 (17.5), 5 (5), 7.5 (5).

Holotype ♀, TAIWAN: TAOYUAN: Tsyrhu (慈湖), 7-V-1992, C. L. Wang, on Morus sp.; **Paratypes:** 6♀ 3♂, collected with holotype.

Distribution: Taiwan.

Remarks: Females have one pair of discal setae on abdominal sternites IV-VI or IV-VII. This can distinguish it readily from most of the *Mycterothrips* without discal setae. *M. acaciae* Priesner, *M. chaetogastra* (Ramakrishna), *M. laticauda* Trybom, and *M. setiventris* Bagnall do have discal setae, but usually more than 4 pairs. Besides, lateral striates on tergites II-VII of *auratus* have no microtrichia. This can also distinguish it from *acaciae*, *laticauda* and *setiventris*, which have clear microtrichia. The male antennal segment

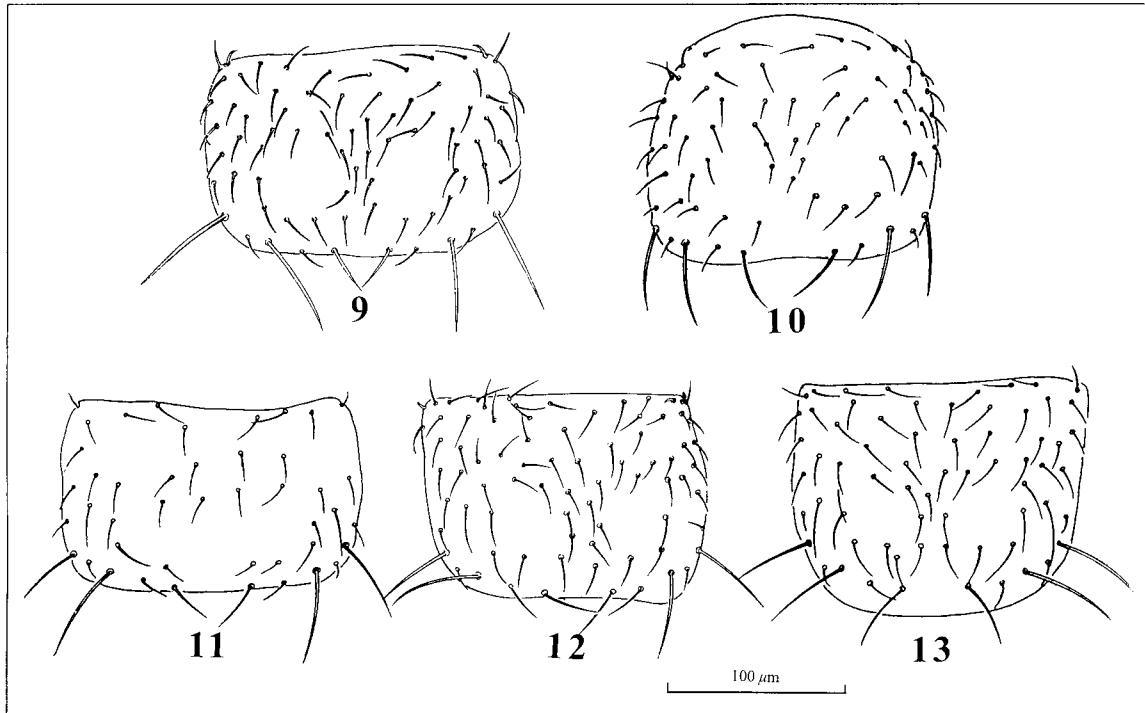


Fig. 14-19. Abdominal tergites VII and VIII of female (14-18): 14. *M. araliae* (Takahashi); 15. *M. auratus* sp. n.; 16. *M. caudibrunneus* sp. n.; 17. *M. glycines* (Okamoto); 18. *M. ravidus* sp. n.; 19. Abdominal tergites VIII-X of male *M. auratus* sp. n..

VI is enlarged in *auratus* and *laticauda*, but normal in *acaciae* and *setiventris*.

Etymology: The species name refers to the golden body color.

***Mycterothrips caudibrunneus* sp. n.**
(Figs. 6, 11, 16)

Female macroptera: Head and thorax yellow, abdomen grayish brown near thorax, darker at segments VII-X; antennal segments I grayish brown, II brown, III and base of IV grayish brown, the remaining segments brown. Forewing and legs grayish brown. All major setae dark brown.

Head wider than long, striated behind compound eyes; ocellar setae pair i anterior to front ocellus, pair ii on far sides of front ocellus, pair iii strong, on anterior marginal lines between 2 posterior ocelli; 5 pairs of postocular setae, the pair immediately behind eyes

longer. Maxillary palps 3-segmented. Antenna 8-segmented, segments III and IV about equal length with VI, segments III and IV with forked sense cones (Fig. 6).

Pronotum with 2 pairs of posterolangular setae, subequal in length; 2 pairs of setae on posteromargin, with inner pair longer; discal setae over 40 (Fig. 11). Meso- and metaspinula present. Forewing with 7~8 setae on base of upper vein, 2 on distal end, 10~11 setae on lower vein, arranged evenly. Femura and tibia setae significant.

Abdominal tergites II-VIII with lateral striates, microtrichia only on posterior portion of tergites VIII and sometimes VII and VIII, comb on posterolateral margin stronger from II to VII, with triangular bases on VI and VII (Fig. 16); tergite VIII posterior comb complete; tergite IX with 2 pairs of discal pores. Median pair of setae on sternite

VII inserted anterior to posterior margin; sternites without discal setae.

Measurements (holotype ♀ in μm): Body length 1100. Head, length 112; width 100; ocellar setae 45. Pronotum, length 115; width 175; major angular setae length 62. Forewing length 600. Comb on tergite VIII length 18. Antennal segments I-VIII length (width): 22.5 (25), 32.5 (20), 37.5 (20), 47.5 (20), 32.5 (15), 45 (17.5), 7.5 (5), 12.5 (5).

Holotype ♀, TAIWAN: PINGTUNG: Kantin: Nanjin Mt. (南仁山), 14-IV-1993, C. L. Wang, on *Miscanthus* sp. **Paratypes**: 1♀, same as holotype except on grass, 1♀, same as holotype, 3-IV-1991, on *Ampelopsis* sp. 1♀, TAINAN: Kuantzuling (關子嶺), 1-IV-1993, C. L. Wang, on tree.

Distribution: Taiwan.

Remarks: This species, like *consociatus* and *araliae*, has more than 40 discal setae on the pronotum, and its tergal lateral striates have no or very few and weak microtrichia. The conspicuous, triangular-based comb on posterolateral margins of tergites II-VII can separate *caudibrunneus* from *araliae*, which has only fine microtrichia on posterolateral margins of tergites VI and VII. Body of *caudibrunneus* is grayish brown, with abdominal segments darker toward anal segments, and antennal segments I-III lighter than segments V-VIII. It is different from *consociatus*. I have checked 8 female specimens of *consociatus* loaned by SMF and USNMNH. All of them are brown on the body and antennal segments I-VIII.

Etymology: The species name refers to the brown terminal abdominal segments.

Mycterothrips glycines (Okamoto)

(Figs. 7, 12, 17)

Euthrips glyines Okamoto, 1911. Wiener Ent. Zeitung, 30(8): 221.

Physothrips glycines: Karny, 1912. Zool. Ann. 4: 340.

Taeniothrips glycines: Moulton, 1928.

Annot. Zool. Japan., 11(4): 326.

Mycterothrips glycines: Bhatti, 1969.

Oriental Ins. 3(4): 378.

This is a yellow species. Female body color, antennal color and general morphological characteristics are similar to those of *araliae*, but its lateral striates and posterolateral margins on abdominal tergites II-VII with microtrichia (Fig. 17).

There are 48 discal setae on pronotum, including 7~8 setae at anterior margin; and 25~26 frontal marginal setae on forewing of the female specimen collected from Japan by I. Kudo. Taiwanese *glycines*, with body length 1.57 mm, is the largest among Taiwan *Mycterothrips*. It is similar to the Japanese specimen, but setosae on pronotum and forewing. There are 58 discal setae on pronotum (Fig. 12); and 27~29 forewing frontal setae. Only one female from Taiwan was identified as *glycines*.

M. glycines is close to *ravidus* which has conspicuous body setae; antennal segments II-VIII the same brown color; male antennal segment VI hairy and elongated. While *M. glycines* has normal setae; antennal segments II and III lighter color than IV-VIII; male antennal segment VI about 1.4 times length of segment III, much shorter than that of *ravidus*.

Male *glycines* with antennal segments I-III and basal half of V light, distal half of IV and V-VIII brown. Segment V short, segment VI hairy and more elongated than normal, but not as conspicuous as in *knekis* and *auratus*, segment VI about 1.4 times as long as segment III. These measurements are from Okamoto's original description in 1911 and from the specimen determined by I. Kudo. No male was collected in Taiwan by the author.

Specimens examined: 1♀, TAIWAN: PINGTUNG: Kandin (墾丁), 14-I-1993, C. L. Wang, on grass; 1♀, JAPAN: Shimane, 11-X-1976, on *Glycine max*, det. I. Kudo. 1

♂, JAPAN: Iwate, 2-IX-1976, on *Glycine max*, det. I. Kudo.

Distribution: Taiwan, mainland China (Han, 1997), Japan (Okamoto, 1911), and Korea (Woo, 1974).

***Mycterothrips ravidus* sp. n.**

(Figs. 8, 13, 18)

Female macroptera: Body grayish brown, thorax and abdomen with irregular darker areas, especially evident on laterals of abdomen segments II-VII; antennal segment I grayish brown, same color with head, segments II-VIII brown; forewing shaded; legs grayish brown.

Head wider than long, striated behind compound eyes; ocellar setae pair i anterior to front ocellus, pair ii on far sides of front ocellus, pair iii strong, on anterior marginal line between 2 posterior ocelli; 5 pairs of postocular setae, the pair immediately behind eyes longer. Maxillary palps 3-segmented. Antenna 8-segmented, distal end of segment III narrowed to form vase shape, segments III and IV with forked sense cones (Fig. 8).

Pronotum with 2 pairs of posterangular setae, about equal length; 2 pairs of setae on posteromargin, with inner pair longer; discal setae 46~48 (Fig. 13). Meso- and metaspinula present. Forewing with 7~8 setae on base of upper vein, 2 on distal end, 15~16 setae on lower vein, arranged evenly.

Abdominal tergites with clear lateral striae and microtrichia, last row of microtrichia on posterolateral margin; tergite VIII posterior comb complete (Fig. 18); tergite IX with 2 pairs of discal pores. Median pair of setae on sternite VII inserted anterior to posterior margin; sternites with no discal setae.

Measurements (holotype ♀ in μm): Body length 1400. Head, length 100; width 150; ocellar setae 40. Pronotum, length 170; width 175; major angular setae length 50. Forewing length 750. Comb on tergite VIII length 25. Antennal segments

I-VIII length (width): 25 (25), 37.5 (25), 57.5 (17.5), 55 (22.5), 37.5 (17.5), 50 (20), 10 (7.5), 12.5 (5).

Male macroptera: Grayish brown. Antennal segments brown, segment I a little lighter. Antennal segment V short and bowl shaped, segment VI elongated and hairy (Fig. 8). Tergite VIII with complete comb on posterior margin; 3 pairs of strong setae on tergite IX. Sternites IV-VII with one pair of discal setae.

Measurements (paratype ♂ in μm): Body length 1000. Forewing length 500. Comb on tergite VIII 17.5. Tergite IX B1 30; B2 37.5; B3 22.5. Antennal segments I-VIII length (width): 27.5 (22.5), 32.5 (20), 42.5 (15), 30 (17.5), 15 (15), 165 (15), 5 (5), 5 (5).

Holotype ♀, TAIWAN: TAICHUNG: Wufeng, III-1995, L. A. Mound, on *Liquidambar* sp.; **Paratypes** 2♀ 2♂, same as holotype; 4♀, same as holotype except on grasses and *Passiflora* sp. and young leaves of tree; 5♂, HSINCHU: Wufen, 5-V-1994, C. L. Wang, on *Ficus* sp.; 2♂, same place and date, on fern; 1♀, same place and date, on *Morus* sp.

Distribution: Taiwan.

Remarks: The numerous discal setae on the pronotum and the clear microtrichia on tergal lateral striae make this species similar to *glycines* and *nilgriniensis* (Ananthakrishnan). Major and minor setae of *ravidus* are comparatively darker and stronger than those of the other 2 species. Antennal color is different in these 3 species: in *M. ravidus*, antennal segments II-VIII are the same brown color; in *nilgriniensis*, antennal segments II and III are lighter than IV-VIII; in *glycines*, antennal segment III is lighter than II and IV-VIII. Male antennal segment VI of *ravidus* is longer than that of *glycines*.

Etymology: The name *ravidus* refers to the grayish body color of this species.

Acknowledgements

I thank Dr. Y. F. Han, Institute of Zoology, Academia Sinica, Beijing, China. His loan of specimens of *consociatus* (Trg.-Tzz.), *setiventris* Bgn., and *ricini* (Shum.) from China initiated this study. I thank Dr. Richard zur Strassen, Senckenberg Museum, Frankfurt, Germany for the loan of specimens of *acaciae* Prs., *albidicornis* (Knch.), *annulicornis* (Uzel), *consociatus* (Trg.-Tzz.), *glycines* (Okam.), *laticauda* Trb., *latus* Bgn., *nilgriensis* (Anan.), *salicis* (O. M. Rtr.), and *tschirkunae* Jcht.. I also thank Dr. Steve Nakahara and Dr. D. A. Nickle, Smithsonian Institution, National Museum of Natural History, USDA, Maryland, USA, for the loan of *acacia* Prs., *albidicornis* (Knch.), *albus* (Mtn.) *annulicornis* (Uzel), *betulae* Crwd., *consociatus* (Trg.-Tzz.), *latus* (Bgn.), *salicis* (O. M. Rtr.), *setiventris* Bgn., and *tschirkunae* Jcht.

Appendix

Known *Mycterothrips* and specimens examined:

acacia Priesner: 1♀, Egypt, 20-V-1936, on *Acacia nilotica*, det. Priesner. 2♀, Egypt, 27-III-1936, on *Salis babylon*, det. Priesner. 1♂, SMF T 15772, Yemen, VI-4-1988, on *Acacia seyal*, det. zur Strassen.

albidicornis (Knechtel): 1♀ 1♂, SMF T 16111, Padova, Italy, 29-VIII-1978, on *Vitis vinifera*, det. zur Strassen. 1♂, Ulmus, Hungary, 23-XII-1924, det. Priesner.

albus (Moulton): 1♀, Washington, US, 9-V-1938, on Cover, det. F. Andre. 1♀, California, US, 5-VI-1962, on *Acer* sp., det. T. Kono. 1♂, Colorado, US, 24-X-1938, on Peach, det. O'Neill. 1♂, California, US, 25-VIII-1941, on Peach, det. O'Neill.

annulicornis (Uz): 1♀ 1♂, SMF T 5515, German, 26-VII-1972, on *Trinia*

glauca, det. zur Strassen. 1♀, CSR-Moravia, 27-V-1955, det. J. Pelikan.

auratus sp. n

aureus (Moulton)

betura Crawford: 1♀ 1♂ paratypes, Cwf 502, N.J., US, 17-VII-1937, on Birch, col. Crawford.

chaetogestra (Ramakrishna)

consociatus (Trg.-Tzz.): 4♀, SMF T 462, Frankfurt, German, VI-15-1961, on *Betula pendula*, 1 ♀, SMF T 17466, Peking, China, VII-1-1992, on *Pinus* sp., det. zur Strassen. 1♂, SMF T 670, Berlin, German, IX-29-1967, on *Helianthus dovonicooides*, det. zur Strassen. 1♀, Tottori, Japan, VIII-28-1978, on *Actinidia arguta*, det. Kudo. 1♂, Hamburg, German, 6-XII-1932, on *Birken geklopft*, det. Tischack. 1♀, Germany, 2- VIII-1963, on *Caliuna vulgaris*, det. O'Neill. 1♀, 1-VII-1950, det. Pelikan. 1♂, Australia, on *Corylus avillana*, det. Priesner.

caudibrunneus sp. n

glycines (Okamoto): 1♀, Shimane, Japan, X-11-1976, on *Glycine max*, det. Kudo. 1♂, Iwate, Japan, IX-2-1976, on *Glycine max*, det. Kudo.

indicus Ramakrishna. (no description)

japonicus Masumoto and Okajima.

laticauda Trybom: 1♀, SMF T 8503, SW Africa, 23-V-1973, on *Tarchonanthus camphoratus*, det. zur Strassen. 1♂, SMF T 13546, XII-22-1985, on *Acacia poly=acantha*, Sudafrica, det. zur Stressen.

latus (Bagnall): 1♀, Scotland, UK, 24-V-1966, on *Salix*; 1♀ 1♂, SMF T 8293, Opland, Norwegen, VIII-21-1978, on *Betula* sp., det. zur Strassen.

nilgiriensis (Ananthakrishnan): 1♀, SMF T 4297, Indian, VII-1969, on *Krant-schichf gehatschert*, det. Bhatti.

ravidus sp. n

ricini (Schumsher)

salicis (Reuter): 1♀, SMF T 7421, Frankfurt, German, VII-16-1977, on *Salix* sp., det. zur Strassen. 2♂, SMF T 10874, Hunoldstal, German, VIII-19-

1981, det. zur Strassen; 2♀, Australia, 27-V-1920, on *Salix purpurea*, det. Priesner.
setiventris Bagnall: 1♀ 1♂, cotypes, India, 14-VI-1916, on tea bush, det. Bagnall.
tschirkunse Jachontov: 1♀ 1♂, SMF T 16781, Antalya, Turkey, IX-28-1989, on *Vitis vinifera*, det. zur Strassen. 1♀, SMF T 5982, Iran, 1-IX-1073, on *Medicago sativa*, det. zur Strassen.

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台灣之雙毛薊馬屬(纓翅目：薊馬科)

王清玲 台灣省農業試驗所 應用動物系 台中縣霧峰鄉中正路 189 號

摘要

本文描述台灣雙毛薊馬屬(*Mycterothrips* Trybom)之種類，包括3新種：金雙毛薊馬(*M. auratus*)，褐尾雙毛薊馬(*M. caudibrunneus*)及灰斑雙毛薊馬(*M. ravidus*)，以及2已記錄種：雙毛薊馬(*M. araliae* (Takahashi))與豆雙毛薊馬(*M. glycines* (Okamoto))之形態特徵等，其中雙毛薊馬係首次紀錄描述其雄蟲，文中亦提供該5種之檢索表。

關鍵詞：雙毛薊馬屬、金雙毛薊馬、褐尾雙毛薊馬、灰斑雙毛薊馬、台灣。